

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink. Cutting or filling two or more circles will result in zero mark in that question.

1-(i) A megabyte has how many kilo bytes:

- (a) 1004
- (b) 1014
- (c) 1024 ✓
- (d) 1034

(ii) The half-life of Plutonium $^{236}_{94}\text{Pu}$ in years is:

- (a) 0.85
- (b) 1.85
- (c) 2.85 ✓
- (d) 3.85

(iii) The output of OR gate will be 0 when:

- (a) A = 0, B = 0 ✓
- (b) A = 1, B = 1
- (c) A = 0, B = 1
- (d) A = 1, B = 0

(iv) Waves transfer:

- (a) Frequency
- (b) Wavelength
- (c) Velocity
- (d) Energy ✓

(v) The refractive index of diamond is:

- (a) 1.52
- (b) 1.66
- (c) 2.42 ✓
- (d) 2.21

(vi) Give the number of factors which affect the ability of a capacitor to store charge:

- (a) 2
- (b) 3 ✓
- (c) 4
- (d) 5

(vii) Which thing works on the principle of electromagnetic induction in hydroelectric power house:

- (a) Motor
- (b) Generator ✓
- (c) Galvanic cell
- (d) Voltaic cell

(viii) What does the term e-mail stand for:

- (a) Electronic mail ✓
- (b) Emergency mail
- (c) Extra mail
- (d) External mail

(ix) In simple pendulum, motion restoring force is provided by:

- (a) Air resistance (b) Tension in string
- (c) Inertia (d) Weight of body ✓

(x) The electric power of washing machine in watt is:

- (a) 50 (b) 750 ✓
- (c) 100 (d) 800

(xi) Capacitance is defined as:

- (a) VC (b) $\frac{Q}{V}$ ✓
- (c) QV (d) $\frac{V}{Q}$

(xii) The intensity level of train siren is:

- (a) 150 dB (b) 130 dB
- (c) 100 dB (d) 120 dB ✓